

Date: Thu, 30 Jun 94 00:34:42 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #722
To: Info-Hams

Info-Hams Digest Thu, 30 Jun 94 Volume 94 : Issue 722

Today's Topics:

Daily Summary of Solar Geophysical Activity for 28 June
FCC Address?
Help with No Scratch mag mount
How to get started ??
IARU Contest RULES !!???
INDY Ham Fest (2 msgs)
IPS Daily Report - 29 June 94
Let's be Careful Out There! (2 msgs)
Microfiche->disk image conversion shops?
Temp. Conversion Chart: F & C?
VOX for 2way radio in motorcycle helmet

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 28 Jun 1994 22:46:13 MDT
From: ihnp4.ucsd.edu!swrinde!gatech!newsxfer.itd.umich.edu!nntp.cs.ubc.ca!alberta!
ve6mgs!usenet@network.ucsd.edu
Subject: Daily Summary of Solar Geophysical Activity for 28 June
To: info-hams@ucsd.edu

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DAILY SUMMARY OF SOLAR GEOPHYSICAL ACTIVITY

28 JUNE, 1994

/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\

(Based In-Part On SESC Observational Data)

SOLAR AND GEOPHYSICAL ACTIVITY INDICES FOR 28 JUNE, 1994

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 179, 06/28/94
10.7 FLUX=073.9 90-AVG=079 SSN=025 BKI=3222 2234 BAI=011
BGND-XRAY=A4.6 FLU1=5.5E+06 FLU10=1.4E+04 PKI=4223 3335 PAI=015
BOU-DEV=026,013,011,017,015,017,021,062 DEV-AVG=022 NT SWF=00:000
XRAY-MAX= B1.6 @ 1133UT XRAY-MIN= A3.7 @ 1004UT XRAY-AVG= A7.2
NEUTN-MAX= +002% @ 2115UT NEUTN-MIN= -002% @ 1130UT NEUTN-AVG= +0.1%
PCA-MAX= +0.2DB @ 2130UT PCA-MIN= -0.1DB @ 2200UT PCA-AVG= +0.0DB
BOUTF-MAX=55324NT @ 0111UT BOUTF-MIN=55277NT @ 2124UT BOUTF-AVG=55306NT
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+080,+000,+000
GOES6-MAX=P:+156NT@ 2116UT GOES6-MIN=N:-055NT@ 0224UT G6-AVG=+108,+034,-023
FLUXFCST=STD:075,075,075;SESC:075,075,075 BAI/PAI-FCST=015,015,015/015,015,015
KFCST=2335 3222 2335 3222 27DAY-AP=024,019 27DAY-KP=4455 3333 4444 3333
WARNINGS=
ALERTS=
!!END-DATA!!

NOTE: The Effective Sunspot Number for 27 JUN 94 was 31.3.
The Full Kp Indices for 27 JUN 94 are: 6- 4o 5- 2+ 3- 3- 2- 3-
The 3-Hr Ap Indices for 27 JUN 94 are: 66 26 41 10 12 11 7 12
Greater than 2 MeV Electron Fluence for 28 JUN is: 2.8E+07

SYNOPSIS OF ACTIVITY

Solar activity was very low. Newly assigned Region 7743 (S09E67) rotated into view, just aft of Region 7742 (S08E54) which came on yesterday. Region 7742 is the more complex of the pair, with a weak delta observed in the leader spots. No flare activity has occurred as yet.

Solar activity forecast: solar activity is expected to be very low.

The geomagnetic field was quiet to unsettled at middle latitudes. High latitudes were slightly more disturbed. It now appears the recurrent disturbance was much shorter than anticipated. The greater than 2 MeV electrons were at moderate to high levels.

Geophysical activity forecast: the geomagnetic field is expected to be predominantly unsettled throughout the period. Active conditions are likely during local nighttime hours.

Event probabilities 29 jun-01 jul

Class M	01/01/01
Class X	01/01/01
Proton	01/01/01
PCAF	Green

Geomagnetic activity probabilities 29 jun-01 jul

A. Middle Latitudes	
Active	50/50/50
Minor Storm	20/20/20
Major-Severe Storm	05/05/05
B. High Latitudes	
Active	55/55/55
Minor Storm	25/20/20
Major-Severe Storm	15/10/10

HF propagation conditions were near-normal from the equatorial to middle latitudes, and near-normal to below-normal over the high and polar latitude regions. Periods of minor signal degradation affected transpolar and transauroral circuits as a result of enhanced geomagnetic and auroral activity, but no significant degradation occurred.

COPIES OF JOINT USAF/NOAA SESC SOLAR GEOPHYSICAL REPORTS

REGIONS WITH SUNSPOTS. LOCATIONS VALID AT 28/2400Z JUNE

NMBR	LOCATION	LO	AREA	Z	LL	NN	MAG	TYPE
7742	S08E54	231	0080	CAO	03	004	BETA-DELTA	
7743	S09E67	218	0000	AXX	00	001	ALPHA	
7737	S11W74	359					PLAGE	
7741	N05W50	335					PLAGE	

REGIONS DUE TO RETURN 29 JUNE TO 01 JULY

NMBR	LAT	LO
7733	N05	170

LISTING OF SOLAR ENERGETIC EVENTS FOR 28 JUNE, 1994

A. ENERGETIC EVENTS:

BEGIN MAX END RGN LOC XRAY OP 245MHZ 10CM SWEEP
NONE

POSSIBLE CORONAL MASS EJECTION EVENTS FOR 28 JUNE, 1994

BEGIN MAX END LOCATION TYPE SIZE DUR II IV
NO EVENTS OBSERVED

INFERRED CORONAL HOLES. LOCATIONS VALID AT 28/2400Z

ISOLATED HOLES AND POLAR EXTENSIONS
EAST SOUTH WEST NORTH CAR TYPE POL AREA OBSN
NO DATA AVAILABLE FOR ANALYSIS

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

Date Begin Max End Xray Op Region Locn 2695 MHz 8800 MHz 15.4 GHz

27 Jun: 1535 1538 1542 B1.3
2131 2133 2135 B1.3

REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

C M X S 1 2 3 4 Total (%)
-- -- -- -- --
Uncorrelated: 0 0 0 0 0 0 0 0 002 (100.0)

Total Events: 002 optical and x-ray.

EVENTS WITH SWEEPS AND/OR OPTICAL PHENOMENA FOR THE LAST UTC DAY

Date Begin Max End Xray Op Region Locn Sweeps/Optical Observations

NO EVENTS OBSERVED.

NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After. All times associated with x-ray flares (ex. flares which produce

associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

Acronyms used to identify sweeps and optical phenomena include:

II	= Type II Sweep Frequency Event
III	= Type III Sweep
IV	= Type IV Sweep
V	= Type V Sweep
Continuum	= Continuum Radio Event
Loop	= Loop Prominence System,
Spray	= Limb Spray,
Surge	= Bright Limb Surge,
EPL	= Eruptive Prominence on the Limb.

** End of Daily Report **

Date: 30 Jun 1994 00:18:52 GMT
From: ihnp4.ucsd.edu!sdd.hp.com!portal.com!djh@network.ucsd.edu
Subject: FCC Address?
To: info-hams@ucsd.edu

On 27 Jun 1994 22:43:10 GMT, Glenn Meader wrote:
> I need to renew my license. I got a 610 form - now what's
> the correct address to send it to at the FCC?

isn't this one of the questions that you could be asked when going for
your Licence ????

Try: FCC Gettysburg, PA

(Sorry, No Zip code handy)

--

Darryl Harvey		Webster Computer Corporation
Email: djh@shell.portal.com		2109 O'Toole Ave, Suite J
Phone: (408) 954 8054		San Jose, CA 95131-1338
Fax: (408) 954 1832		U.S.A.

Date: 29 Jun 1994 18:34:04 -0400
From: newstf01.cr1.aol.com!search01.news.aol.com!not-for-mail@uunet.uu.net
Subject: Help with No Scratch mag mount

To: info-hams@ucsd.edu

In article <2uqces\$bjk@usenet1.sjc.in.sel.sony.com>,
jeff@sec.sel.sony.com (Jeff Kashinsky) writes:

Some mylar has worked good for me, I think potato chip bags are made
of it, anyway, the material used by the chip bags is thin,
non-conductive, and strong. Just put some between the antenna and
roof. (Its that shinny stuff)

Date: Wed, 29 Jun 1994 15:51:16 EST
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!spool.mu.edu!news.nd.edu!
irishvma!pshaw@network.ucsd.edu
Subject: How to get started ??
To: info-hams@ucsd.edu

I think I want to get into amateur radio, and my son is also
interested. How do a couple of dummies get started? What are
the costs? How hard are the license tests?

I would probably use the radio more when backpacking or bike
camping, are there any problems there?

I do not know what I need to ask, so please provide any info
which would be helpful in deciding wheather amateur radio
is worth it for me and my son.

PLEASE RESPOND via E-MAIL.

Pete Shaw	E-mail: PSHAW@VMA.CC.ND.EDU
Office of University Computing	voice: 219-631-8123
University of Notre Dame	fax: 219-631-8201

+-----+
==> I don't wana work, I just wana ride my bike all day !! <==

Date: Wed, 29 Jun 1994 13:50:19 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!EU.net!relay.puug.pt!
news.inesc.pt!animal.inescn.pt!ciup2.ncc.up.pt!news.ci.ua.pt!
etjfonte@network.ucsd.edu
Subject: IARU Contest RULES !!???
To: info-hams@ucsd.edu

Hello .

I'm planning to participate in this year IARU championship but I don't have
the complete rules...I already have a software for IARU's CT. but I don't
understand the main rules...I think there are 90 zones??!! Wich one is portugal?
what do we have to exchange in the QSO? the bands , class of operation???

where do we send the log's ...
PSE answer...
here or via email...
TNX for reading , best 73's...
CT1ENQ

--

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|-----|
| Jose' Miguel M.B.Fonte          | Aveiro University - PORTUGAL - EUROPE |
| Box 108 - 4801 Guimaraes - PT. | Electronics and Telecommunications Dept. |
| E-mail : etjfonte@ci.ua.pt      |---|-----|
| PACKET : CT1ENQ@CT1EDY.CTAV.PRT.EU | Ham:CT1ENQ - Univer.Club: CT6ARU |
|-----|
```

A formula do sucesso e' simples: faz o melhor que puderes,
pode ser que as pessoas gostem.

Sam Ewing

Date: Wed, 29 Jun 1994 20:23:39 GMT
From: ihnp4.ucsd.edu!usc!sol.ctr.columbia.edu!usenet.ucs.indiana.edu!
onyx.indstate.edu!pifer.indstate.edu!ccdave@network.ucsd.edu
Subject: INDY Ham Fest
To: info-hams@ucsd.edu

It is my understanding (translated the grape vine has spoken) that there is
a HAM Fest in Indianapolis July 9 and 10 at the fair grounds. Is this true
and does any one have more details like from what time to what time etc.....

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David L. Pifer                                VOX: (812) 237-2923
Systems Programmer, Graphics Specialist        FAX: (812) 237-4361
Computing Services & Facilities                OFFICE: Rankin Hall R044
Indiana State University                      PMAIL: AMBER/CCDAVE
Terre Haute, IN 47809                       Bitnet/INET: ccdave@amber.indstate.edu
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Date: Thu, 30 Jun 1994 06:45:28 GMT
From: ihnp4.ucsd.edu!swrinde!emory!sol.ctr.columbia.edu!usenet.ucs.indiana.edu!
battin@network.ucsd.edu
Subject: INDY Ham Fest
To: info-hams@ucsd.edu

In article <ccdave.81.2E11D84B@amber.indstate.edu>, David Pifer
(ccdave@amber.indstate.edu) wrote:
> It is my understanding (translated the grape vine has spoken) that there is

> a HAM Fest in Indianapolis July 9 and 10 at the fair grounds. Is this true
> and does any one have more details like from what time to what time etc.....

Date: Wed, 29 Jun 1994 23:10:36 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!newsxfer.itd.umich.edu!isclient.merit.edu!
msuinfo!harbinger.cc.monash.edu.au!news.cs.su.oz.au!metro!ipso!
rwc@network.ucsd.edu
Subject: IPS Daily Report - 29 June 94
To: info-hams@ucsd.edu

SUBJ: IPS DAILY SOLAR AND GEOPHYSICAL REPORT
ISSUED AT 29/2330Z JUNE 1994 BY IPS RADIO AND SPACE SERVICES
FROM THE REGIONAL WARNING CENTRE (RWC), SYDNEY.
SUMMARY FOR 29 JUNE AND FORECAST UP TO 2 JULY

IPS Disturbance Warning 17 was issued on 22 June and is current for
interval 24 June to 4 July

1A. SOLAR SUMMARY
Activity: very low

Flares: none.

Observed 10.7 cm flux/Equivalent Sunspot Number : 079/019

GOES satellite data for 28 June
Daily Proton Fluence >1 MeV: 5.5E+05
Daily Proton Fluence >10 MeV: 1.4E+04
Daily Electron Fluence >2 MeV: 2.8E+07
X-ray background: A4.6
Fluence (flux accumulation over 24hrs)/ cm2-ster-day.

1B. SOLAR FORECAST

	30 June	01 July	02 July
Activity	Very low	Very low	Very low
Fadeouts	None expected	None expected	None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number : 080/020

1C. SOLAR COMMENT
None.

2A. MAGNETIC SUMMARY
Geomagnetic field at Learmonth: unsettled to active

Estimated Indices : A	K	Observed A Index 28 June
Learmonth	17 3433 2433	
Fredericksburg	20	17
Planetary	25	15

Observed Kp for 28 June: 4223 3335

2B. MAGNETIC FORECAST

DATE	Ap	CONDITIONS
30 Jun	16	Unsettled to active.
01 Jul	16	Unsettled to active.
02 Jul	16	Unsettled to active.

2C. MAGNETIC COMMENT

Resurgence of geomagnetic activity observed yesterday.

3A. GLOBAL HF PROPAGATION SUMMARY

DATE	LATITUDE BAND		
	LOW	MIDDLE	HIGH
29 Jun	normal	fair	fair

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST

DATE	LATITUDE BAND		
	LOW	MIDDLE	HIGH
30 Jun	normal	fair	poor
01 Jul	normal	fair	poor
02 Jul	normal	fair	poor

3C. GLOBAL HF PROPAGATION COMMENT

Geomagnetic activity did not decline as expected. HF conditions at high lats remained degraded.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were near predicted monthly values

Observed T index for 29 June: 26

Predicted Monthly T Index for June is 30.

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs
30 Jun	20	Near predicted monthly values.
01 Jul	25	Near predicted monthly values.
02 Jul	25	Near predicted monthly values.

4C. AUSTRALIAN REGION COMMENT

Geomagnetic activity unexpectedly increased again, no significant depressions expected (winter). However, degraded HF comms quality expected, especially during local night.

--

IPS Regional Warning Centre, Sydney	IPS Radio and Space Services
email: rwc@ips.oz.au fax: +61 2 4148331	PO Box 5606
RWC Duty Forecaster tel: +61 2 4148329	West Chatswood NSW 2057
Recorded Message tel: +61 2 4148330	AUSTRALIA

Date: 30 Jun 94 04:04:44 GMT
From: news-mail-gateway@ucsd.edu
Subject: Let's be Careful Out There!
To: info-hams@ucsd.edu

Let's be Careful out there!

I heard something this afternoon that made me decide to post a little reminder to everyone who monitors a public safety frequency with their amateur radio:

Here in Orange County, CA, all police and sheriffs units monitor a county wide "red" frequency. Red is a popular frequency for hams and scanner buffs to listen in on, that's where the action was during the infamous "O.J. Simpson parad...uh pursuit.

Today, while driving, I heard someone on the red channel's output frequency pounding DTMF tones. It did not seem that they were trying to jam, it sounded very much like someone trying to control a repeater. The person pounded out a 5 digit code, waited, tried again, waited, tried another code . . . After a longer wait, they were back again, clearly seeming to be carefully trying to send a control sequence and not understanding why it didn't work. Since this was on the output only, it seems the control operator was not aware of the situation, they normally say something like "Unit on red?" when someone starts keying their system. That usually wakes up the person doing it. :-) Eventually, a patrol sergeant decided to ask for a radio check on red. That seems to have awakened them, the tones stopped.

Now the reminder: Be careful when using a transmit capable radio to monitor public safety frequencies! If your radio supports it, program an odd split so that if

you do inadvertently transmit, it will be in the ham bands. This person was clearly not paying attention to what they were doing, but accidents do happen. This type of accident could land you a fine and license suspension. If someone is injured because you were messing around on the police band, the little mistake becomes a felony! No kidding!

I feel better now, thank's for reading. :-)

Wm. A. Kirsanoff Internet: WAKIRSAN@ananov.remnet.ab.com
Rockwell International Ham: KD6MCI
(714) 762-2872
Alternate Internet: william_a._kirsanoff@ccmail.anatcp.rockwell.com

Who are you? * I am number 2. * Who is number 1? * You are number 6.

Date: Thu, 30 Jun 1994 06:26:13 GMT
From: news.Hawaii.Edu!kahuna!jeffrey@ames.arpa
Subject: Let's be Careful Out There!
To: info-hams@ucsd.edu

In article <9405297729.AA772945530@smtpgty.anatcp.rockwell.com>
William_A._Kirsanoff@ccmail.anatcp.rockwell.COM (William A. Kirsanoff) writes:

>Let's be Careful out there!

>

>I heard something this afternoon that made me decide to
>post a little reminder to everyone who monitors a public
>safety frequency with their amateur radio:

>

>Here in Orange County, CA, all police and sheriffs units
>monitor a county wide "red" frequency. Red is a popular

Gad - 20 years have flown by. I can remember when Orange County and all cities within the county moved from 45 Mc up to UHF back in 1974. What a mess that was trying to get used to all those channel colors. Red, Orange North, Orange South, White, Blue, a dozen Greens. Each public service member received a little orange book to keep in their shirt pocket to help sort out the confusion. I've still got mine somewhere. We had a good system - it was the only county in the nation that had city and county-wide coordinated communications - police, sheriff, fire (yea!), lifeguard, harbors, military police, animal control, all overseen by one agency known over the radio as Control 1 (nicknamed Dog-Patch). You couldn't sneeze without

Control 1 knowing about it. I was told that many counties across the country started modelling their communications after ours :)

Jeff NH6IL

Date: 30 Jun 1994 01:34:00 -0400
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!news.intercon.com!news1.digex.net!
digex.net!not-for-mail@network.ucsd.edu
Subject: Microfiche->disk image conversion shops?
To: info-hams@ucsd.edu

I need to convert some microfiche images to disk file images, such as .pcx or .jpg.

Can you supply me with pointers to businesses which provide such a service?

Email is preferred.

Thanx in advance!

--

rec.nude: your exit to good living along the Information Toll Road.
finger bote@access.digex.net for PGP key and an operator will help you.
Por via del empedrado de informacion.

Date: Thu, 30 Jun 1994 02:01:38 GMT
From: news.Hawaii.Edu!kahuna!jeffrey@ames.arpa
Subject: Temp. Conversion Chart: F & C?
To: info-hams@ucsd.edu

No need to have a table nor remember formulas. We know the relationship between F and C is linear so we can start with the basic linear equation $y = mx + b$ where m and b are constants we need to determine. Our function y needs to map 0C to 32F and 100C to 212F. So we start by setting $x = 0$ and $y = 32$:
 $32 = m0 + b$ which gives $b = 32$. So now we have
 $y = mx + 32$. Next, set $x = 100$ and $y = 212$:
 $212 = 100m + 32$; solving for m gives us
 $m = 9/5$ so our C to F conversion is
 $y = (9/5)x + 32$ or if you prefer
 $F = (9/5)C + 32$. I'd show the other conversion

but I've run out
of space.

Jeffrey
NH6IL

Date: Thu, 30 Jun 1994 04:23:31 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!news.ucdavis.edu!dale.ucdavis.edu!
ez003335@network.ucsd.edu
Subject: VOX for 2way radio in motorcycle helmet
To: info-hams@ucsd.edu

cecil_walker@ccm.hf.intel.com wrote:

: Does anyone know of a VOX (Voice Operated Transmit) unit that I can place
: onto my Yaesu FT-470 HT so I can place my headset and mic into my motorcycle
: helmet?

: Please respond to:

: cecil_walker@ccm.hf.intel.com

: 73s, Thanks, N7LTD

to be used for (rec.moto.)RACING, no doubt...

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+-----+
| Len Padilla |lgpadilla@ucdavis.edu |
| University of California, Davis | Atmospheric Science Graduate Group |
| http://atm21.ucdavis.edu/len.html |
+-----+

Date: Wed, 29 Jun 1994 14:52:21 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!sundog.tiac.net!
usenet.elf.com!rpi!psinnntp!arrl.org!zlau@network.ucsd.edu
To: info-hams@ucsd.edu

References <2ul0t2\$50o@ionews.io.org>, <1994Jun27.141555.17326@arrl.org>,
<2uoo2i\$34l@ionews.io.org>usenet.
Subject : Re: What causes pitch shift in receiver?

Mike Stramba (mike@io.org) wrote:
: In article <1994Jun27.141555.17326@arrl.org>,
: Zack Lau (KH6CP) <zlau@arrl.org> wrote:

: >Mike Stramba (Canada) (mike@io.org) wrote:
: >
: >: What causes the 'pitch shift' effect? ... I.e the person's voice sounds
: >: like it's been shifted down an octave or more, and also sounds like it's
: >: being fed through a flanger.
: >
: >The problem is the cheap radio. No doubt it tunes in 1 kHz steps. To
: >reproduce voice accurately, you have to re-insert the carrier accurately.
: >A radio with 100 Hz steps may not be acceptable to finicky listeners.
: >10 Hz steps are usually good enough for almost everyone.

It isn't unusual for HF amateur transceivers radios to tune in 25 Hz or smaller steps these days, though I don't know the number for each of the radios out there.

: Actually this radio changes the digital display in only 10 khz steps.

It isn't unusual for radios to tune in finer steps than they display.

: Is there a DSP algorithm that could be used to render intelligible speech
: from the mistuned signals?

Yes there is, though it depends how the signal is mistuned. If you re-insert the carrier in the middle of a voice signal, two different input frequencies get translated to the same output frequency. My guess is that this requires a much more sophisticated algorithm that knows something about speech characteristics than one that say, just shifts frequencies down by 1 kHz.

--

Zack Lau KH6CP/1 2 way QRP WAS
 8 States on 10 GHz
Internet: zlau@arrl.org 10 grids on 2304 MHz

Date: (null)
From: (null)
Indianapolis Hamfest
host to the
ARRL Central Division Convention

July 9 & 10, 1994

Indiana's Largest Ham Radio and Electronics Flea Market

Hamfest Hours:
Saturday 6AM - 5PM EST
Sunday 7AM - 3PM EST

Overnight camping available
Commercial exhibits and forums
Indoor and Outdoor flea market
Major Prizes
Homebrew contest
Transmitter hunts

Easy access, I-465 & I-74, at the Marion County Fairgrounds

ARRL Central Division
Convention Banquet
Saturday Evening, July 9 (no time given on flyer)

For more info, write:
Indianapolis Hamfest Association
P.O. 11776
Indianapolis, IN 46201
Phone: (317) 251-4407

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Gene Battin, N9XAM
battin@iucf.indiana.edu

End of Info-Hams Digest V94 #722
